

SUMMARY RECORD (PLENARY SESSION)
NAVIGATION SAFETY ADVISORY COUNCIL (NAVSAC)

DECEMBER 14-16, 1996
Adams Mark Hotel
Houston, Texas

1. BACKGROUND

On call of its Sponsor, Rear Admiral James C. Card, and after public notice in the Federal Register (61 FR 58094), the thirteenth meeting of the Navigation Safety Advisory Council (NAVSAC) was held on December 14-16, 1996, in Houston, Texas. The meeting opened on Saturday morning in plenary session, followed by committee meetings on Saturday afternoon and all day Sunday. The meeting closed in plenary session on Monday morning.

This report is a summary of the Council's conclusions and actions during the plenary sessions. Subject to Section 552 of Title 5, United States Code, the records, reports, transcripts, minutes, appendices, working papers, draft studies, agenda and other documents which were made available to and/or prepared by the Council are available for public inspection and copying at the office of the Executive Director, Margie G. Hegy, U.S. Coast Guard (G-MOV-3), 2100 Second Street SW, Washington, DC 20593-0001. An attendance list for all sessions is attached as Appendix I.

2. OPENING OF MEETING

Chairman Anthony Fugaro called the meeting to order at 8 a.m. on Saturday, December 14, 1996. The Summary Record of the April 1996 meeting was unanimously adopted.

Rear Admiral Card, NAVSAC sponsor, welcomed the Council to Houston and spoke briefly on the effects of Coast Guard streamlining which brought the sponsorship of NAVSAC under his purview. As sponsor of six advisory councils, he appreciates the work of advisory councils which also provides him the opportunity to meet with a variety of different people. He spoke briefly on the Coast Guard's Prevention Through People (PTP) program. The realization that 80% of the incidents are caused by human errors is not new. This was discussed many years ago and put in the bottom drawer because of other workload requirements. When you reach the point of saturation with layers of regulations regarding the ship structure, equipment, and operations (which account for 20% of the accidents) you have to look at the other 80% -- the human element. This is what PTP is all about.

Captain Kevin Eldridge, Captain of the Port of Houston gave an informational brief on "Port State Control (PSC) and Implementation of Prevention Through People (PTP) Initiative in Houston." Appendix II is a copy of Captain Eldridge's slides which summarizes his presentation.

Captain Allison Ross reported on the July meeting with RADM Card to discuss communication/duplication issues and lead a discussion on how to address these issues. The following comments/issues resulted from the discussion:

- Captains Ross and Pillsbury - NAVSAC recommendations and resolutions should not always start with "The Coast Guard should...". NAVSAC members need to look to themselves to find information without always relying on the Coast Guard.
- Reginald McKamie - suggested that Chairmen of all "SAC's" meet regularly to exchange information.
- Gretchen Grover - Committee/council members in geographical location of other SAC meetings should attend those meetings. Coast Guard must give better notification of these meetings to facilitate this effort.
- RADM Card - suggested newsletter/on line solutions to communications issues that would improve librarianship.
- Margie Hegy - Will put NAVSAC summary records of meetings and other Council information on the worldwide web.
- Captain Pillsbury - Initial bullets of upcoming meetings so that members of other SACs or the public can have time to digest and plan for meeting.
- Captain Steve Ford (public) - Consider the formation of a "Super Council" or point Chairperson so that all SACs are included in the meetings of others.
- Captain Pillsbury - Form a subcommittee of volunteers to look into a communications process for pulling some ideas together. What is the best way, i.e. worldwide web, newsletters, super meetings, etc.? Reginald McKamie, Captain Sanborn, and Captain Ross volunteered for subcommittee. Further comments should be directed to the subcommittee.
- Don Sheetz - All media must be investigated.
- Captain Nesbitt - Designate point person in Coast Guard to gather information from all SACs and distribute and coordinate efforts of all the SACs.

After the Executive Director's Report (Appendix III), Vice Chairman Sheetz lead a member roundtable session to brainstorm issues that Council members would like to recommend for future Council action. The following list captures the issues recommended:

1. Reginald McKamie - Investigate gambling and passenger vessel safety issues.
2. Ann Sanborn - Review NASBLA and MLA model boating safety acts and adopt/endorse one to promote consistency.
3. Mickey DeHart - Investigate "Aviation Reporting System" for application to vessels.
4. Pamela Hom - Dissemination of information to the maritime public at large, i.e., the man on the deck of the ship.
5. Reginald McKamie - Overuse of radios -- congestion and interference of frequencies may be causal factors in incidents and accidents.
6. Don Sheetz - Negative impact on mariner of frequent turnover of Coast Guard personnel in key/sensitive positions such as VTS. Extend tour of duty in key positions.
7. Charles Pillsbury - GMDSS/CH16 watch requirements.
8. Charles Pillsbury - STCW course approvals and mechanisms/staffing levels.
9. Al Cattalini - Look at NAVSAC charter to determine NAVSAC's proper role as advisor to the Coast Guard. Is NAVSAC doing Coast Guard staff work and how much is acceptable?
10. Mike Nesbitt - Training standards in general, model courses, bridge resource management and standards for certification on STCW, simulators, and guidance to training facilities.
11. Rodney Gregory - Implementation of ISM Code. What are the Coast Guard's plans for implementation and enforcement?
12. Gene Reil - What can NAVSAC do in conjunction with NBSAC to promote recreational boater training and certification?
13. Steve Hung - GPS, ADS, AIS standards and implementation plans on new navigation technology.

14. Larry Miller (Port of Houston) - Mooring arrangements, ship dimensions and channel sizes. What is a safe national standard?
15. Dave Steiner (public) - Update on navigation system advancements.
16. Steve Ford (public) - Navigation safety technology for the 21st century - smart charts, virtual reality charts, etc.
17. Steve Ford (public) - Develop/recommend a program to close the loop between incidents and licensing, such as questions on exams about incidents, etc.
18. Aids to Navigation Committee - Need to develop National Waterways Management plan.

After discussion, the following items were consolidated:

Numbers 5 & 7
Numbers 13, 15, & 16
Numbers 14 & 18

Council members then voted to determine the priority of the issues. There were 15 voting members. The voting resulted in the following top ten issues:

1. Numbers 5 & 7 (combined) with 15 votes.
2. Number 10 with 14 votes.
3. Number 1 with 12 votes.
4. Number 6 with 12 votes.
5. Numbers 14 & 18 (combined) with 12 votes.
6. Number 12 with 10 votes.
7. Numbers 13, 15 & 16 (combined) with 9 votes.
8. Number 3 with 9 votes.
9. Number 11 with 9 votes.
10. Number 8 with 8 votes.

A group consisting of Chuck Pillsbury, Don Sheetz, Rodney Gregory, Reginald McKamie, Anthony Fugaro and Margie Hegy agreed to meet after the session ended to determine the appropriate way, i.e. brief, etc., to address these issues. Their recommendations were presented to the Council and the following reflects the issue and the action that was agreed upon by the Council for the ten top issues:

1. **ISSUE** Overuse of radios -- congestion and interference of frequencies may be causal factors in incidents and accidents. GMDSS/CH16 watch requirements. **ACTION** Will be on agenda for April 1997 meeting.

Reginald McKamie and Charles Pillsbury to research issue and help develop issue paper.

2. **ISSUE** Training standards in general, model courses, bridge resource management and standards for certification on STCW, simulators, and guidance to training facilities. **ACTION:** Briefing by Coast Guard at April 1997 meeting.
3. **ISSUE** Investigate gambling and passenger vessel safety issues. **ACTION** Will be on agenda for April 1997 meeting. Reginald McKamie to research issue and help develop issue paper.
4. **ISSUE** Negative impact on mariner of frequent turnover of Coast Guard personnel in key/sensitive positions such as VTS. Extend tour of duty in key positions. **ACTION:** Not an agenda item or briefing topic. The following resolution was passed (14 yes and 1 abstention) to voice Council concern:
 - [96-19] Turnover of uniformed and non-uniformed Coast Guard personnel in key/sensitive positions such as VTS, investigations and inspections concerns NAVSAC. Therefore, NAVSAC recommends the Coast Guard ensure the highest levels of consistency, training and expertise, including possibly extending tours of duty, while providing career enhancement/advancement opportunities and overall job satisfaction.
5. **ISSUE** Mooring arrangements, ship dimensions and channel sizes. What is a safe national standard? Develop National Waterways Management plan. **ACTION** Brief.
6. **ISSUE** What can NAVSAC do in conjunction with NBSAC to promote recreational boater training and certification? **ACTION** This is a question, not an agenda item or briefing topic, and the following resolution was passed (13 yes, 2 no) to address this issue:
 - [96-21] Recreational boater training, education and certification is a high priority item. Therefore, NAVSAC hereby establishes a working group to work with the National Boating Safety Advisory Council (NBSAC) to identify actions that NAVSAC can take to assist NBSAC in promoting recreational boater training, education, and certification.

Council member Gene Reil, who in addition to being a Sandy Hook pilot on commercial vessels is has been an avid recreational boater for 30 years, volunteered to chair the working group. Member John Ralston has volunteered to assist.

7. **ISSUE:** GPS, ADS, AIS standards and implementation plans on new navigation technology. Update on navigation system advancements. Navigation safety technology for the 21st century - smart charts, virtual reality charts, etc. **ACTION:** Briefing.
8. **ISSUE:** Investigate "Aviation Reporting System" for application to vessels. **ACTION:** Members to be provided with copy of report for further discussion.
9. **ISSUE:** STCW course approvals and mechanisms/staffing levels. **ACTION:** Not an agenda or briefing item. Following resolution passed (14 yes, 1 abstention) to relay concerns to the Coast Guard:
 - NAVSAC, recognizing the importance of training in the revised STCW, the new ISM code, and AWO's Responsible Carrier Program, requests that the Coast Guard give a very high priority to providing the resources required by the National Maritime Center (NMC) (including staff) to do quality and timely course review and approval. NAVSAC reminds the Coast Guard that experienced, professional mariners, knowledgeable about vessel, regulations, and good educational practice, are essential to the successful completion of this mission.
10. **ISSUE:** Implementation of ISM Code. What are the Coast Guard's plans for implementation and enforcement? Is the Coast Guard going to accelerate the deadline for U.S. ships? **ACTION:** Coast Guard to send available information to members and arrange for briefing at April 1997 meeting.

Captain James Rutkovsky, Chief, Office of Vessel Traffic Management, discussed the redirection of the Vessel Traffic Service (VTS) program --now known as the Ports and Waterways Safety System. Recent reports by the GAO and Marine Board were critical of the VTS 2000 project. GAO said the Coast Guard should interact with stakeholders to seek less expensive solutions. The Marine Board said we needed to partner with waterway users, develop a generic baseline and select ports with the greatest needs. The INTERTANKO report said VTSs should only be in key ports and that waterways management is lacking in U.S. ports.

The 1997 Coast Guard Appropriations Bill terminated the VTS 2000 project and directed the Coast Guard to identify minimum user requirements and examine off the shelf technologies. FY97 Coast Guard budget has funding for identifying minimum user requirements and examining off-the-shelf solutions. Coast Guard program objectives are to determine key safety areas and prepare for FY98 program.

Captain Rutkovsky asked what is the appropriate Coast Guard role in VTS? International standards development is an area that the Coast Guard will

continue to lead to ensure that U.S. is in compliance with the rest of the world. The Coast Guard will partner with port stakeholders to seek solutions to waterway management problems. The Coast Guard will advocate VTS when it is the appropriate waterways management solution and implement when appropriate. Joint implementation is an option.

The Coast Guard is changing its approach and looking at waterway issues from a broader perspective, not just VTS. They are not going to advocate VTS for the sake of VTS when there may be a less expensive and more appropriate solution to problems in a port. The Coast Guard is engaging national representatives and marine stakeholders in determining port needs. The Marine Board will be developing the generic baseline system which the government will fund. The first port being reviewed is New Orleans, Partnerships have already been formed in New Orleans and Tampa. The result will be the appropriate waterways management solution, or the right tool for the job.

Vice Chairman Sheetz presented an overview of a casualty investigation his company conducted applying “The Nine Switches of Human Alertness” to determine the role the human element played in the casualty. The nine switches of human alertness are:

- Time of day on the circadian clock
- Environmental lights
- Environmental temperature.
- Environmental sound
- Environmental aroma
- Ingested nutrients and chemicals
- Muscular activity
- Interest, opportunity or sense of danger
- Sleep bank balance

The presentation was very interesting and the outcome of the investigation was that most of the switches were turned off.

Captain Tom Meyers, Chief, Office of Aids to Navigation briefed the Council on the Coast Guard’s aids to navigation program. He considers aids a key piece of the total waterway picture, and a small but important component of waterways management. Anything external to the vessel that helps determine your position is within the definition of aids to navigation. Captain Meyers addressed Council members concerns about the level of service the Coast Guard would be providing in the future and provided insight into the program at large.

3. COMMITTEE REPORTS

A. Report of the Barge Lighting Committee. (Members and participants appear in Appendix I of this Summary.)

Captain Ann Sanborn reported as Chairman of the Committee. The Committee was established approximately two years ago because of concerns that barge lighting was inadequate. After reviewing public comments, providing the public an opportunity to present their concerns at a public meeting, receiving information from the Coast Guard, and considerable debate the Committee met to make recommendations to put this issue to rest.

The Committee concluded that while there is a problems with the lighting of barges, that it is not widespread (significant) enough to warrant a change to Navigation Rule 24. The public, as well as NAVSAC members felt that there were factors, other the lighting configuration on barges, that contributed to incidents between tugs/tow and other vessels. The most often mentioned factors were: (1) the lack of boater education recognizing lighting configurations; (2) no licensing requirement for recreational boaters; (3) boating while intoxicated; (4) non-applicability of 46 CFR (sets technical requirements for navigation lights) to uninspected towing vessels; (5) vertical sector requirements waived for battery powered lights; (6) lack of compliance with existing lighting requirements, i.e., use of household bulbs; and (7) lack of enforcement of existing lighting requirements. Some recreational boaters expressed a desire to have retro-reflecting material placed on the sides of barges, but this was determined to not be a practicable solution because of lack of durability in the saltwater environment.

NAVSAC passed the following resolutions to address these issues:

[96-11] NAVSAC recommends that boating safety Federal grant dollars be tied to states' enactment of a uniform boater safety act which mandates boater safety education, including Rules of the Road, and licensing. (11 yes, 5 nos).

[96-12] NAVSAC recommends that Paragraph 6 of the Office of Maritime and International Law's memo of November 25, 1996 be implemented. (Unanimous).

Note: Language of memo referenced above follows:

6. It is my opinion that the approval provisions in 46 CFR 111.75-17(d) could be applicable to uninspected vessels by referencing this requirement in the implementing regulations for the COLREGS, 33 CFR Part 81, and for the inland rules, 33 CFR 84.25. Alternatively, regulations requiring the approval of navigation lights under the COLREGS and the inland rules could be promulgated without reference to 46 CFR 111.75-17(d). In either case, the authority for such regulation would be paragraph 13 of Annex I, Note following 33 U.S.C. 1602, for the COLREGS and 33 U.S.C. 2071 for the Inland Navigation Rules, which authorizes the Secretary to issue regulations to establish technical

Annexes to the Inland Navigation Rules, including for lights. 33 U.S.C. 2071 further states that these Annexes should be as consistent as possible with the respective annexes in the COLREGS. As the COLREGS require navigation lights to be approved, a similar requirement in the inland rules would be consistent and, therefore, authorized by 33 U.S.C. 2071.

[96-13] NAVSAC recommends/encourages the Coast Guard to actively engage in a program to ensure compliance with navigation light requirements.

[96-14] NAVSAC recommends that barge operators be encouraged to consider the use of contrasting colors and reflecting paints for the head log* to improve visibility of barges. (*Head log is a horizontal stripe that is approximately 18 to 24 inches high and painted between the navigation lights at the bow of the barge.) (15 yes, 1 abstention)

This concluded the work of the Barge Lighting Committee. The Council thanked Captain Sanborn for serving as its chair since it began over two years ago.

B. Report of the Vessel Traffic Services Committee. (Members and participants appear in Appendix I of this Summary.)

Captain Gene Reil reported as Chairman of the Committee. The Committee served as an outreach forum to provide advice to the Coast Guard as it begins the quest to comply with Congressional mandate to develop a new Federal approach to providing vessel traffic services (VTS). To stimulate the discussion, the Committee was tasked to respond to eight questions. The questions and Committee member response follows:

1. Is partnering with the Federal, state and local government, public authorities, and the private sector desirable for planning and designing VTSs? The answer was yes, and the information provided by NAVSAC will be used by the Coast Guard at Congressional hearings and Marine Board future activities. There are several state and local jurisdictional issues with regard to how much VTS they want and what the port needs are. VTS stakeholders must have common goal which is to improve the safe and efficient movement of vessels and to protect the environment. Tampa is starting a private system. Pilot involvement is critical. There are private systems already in operation and partnerships within these systems already established.

2. Are shared acquisition and financing of VTS by the partnership desirable? The Committee said yes.

3. Are shared operations and maintenance of VTS by the partnership desirable? The Committee answered yes to both operations and maintenance. They discussed who decides what is bought beyond the safety baseline and decided

that it was probably the stakeholders. In addition, the systems need to be user and waterway specific, not too general.

4. In addition to fulfilling the goals of waterway safety and marine environmental protection, can technology for surveillance, information dissemination, and waterway traffic management advance other economic and commercial goals? The Committee said yes, but safety is paramount. Commercial concerns should not intrude on safety. Waterways management is an issue. It should not necessarily be just VTS. It's the whole management of our nation's waterways and how they tie in. Primary usage is for the safe navigation of the vessel.

5. Are most commercial maritime interests willing to invest the time and energy to forge an effective consortium whose sole objective is to define the requirements, design the system, plan the financing and acquisition, and support the long term operations and maintenance of a VTS? The Committee felt the answer was yes and separated the question into two parts. With regard to the first part of the question, it depends on whether the stakeholder recognizes the economic interest. The Committee needed more information to go beyond this initial statement. The second part, the financing issue of who pays for VTS, is the big issue. It can't be answered at just one meeting or by one group. It is port specific. The baseline standardization/uniformity among ports is essential, so that when a ship goes from one port to another it is not a completely different system. National standards must be maintained and international standards must be developed in other ports of the world.

6. What organizational or partnering structure would be most effective? The Committee felt that the structure was not as important as characteristics like port specifics. Everyone should participate, including the U.S. Army Corps of Engineers. Each port is different as they all have their idiosyncrasies and the geographic demands which all need to be considered on an individual basis. The appropriate stakeholders, which may differ from port to port, need to be identified. What works in New York may not necessarily be what is needed on the west of gulf coast. The group must include public and private systems and focus on local safety needs and demands of a particular port.

7. What resources would a local port area consortium require from the Coast Guard to support a partnership planning effort? We need their input and history of past operations of VTS systems including: technology, standard operating procedures, regulatory assistance, lessons learned, contingency plans, and commitment. From past operations the Coast Guard knows what worked and what didn't work. VTS has been through a lot of manifestations since the early 1970's and some of what we've learned, we've learned the hard way. Technology is changing constantly. The VTS of the future may not resemble the VTS that we are familiar with. There are other off-the-shelf systems that can do the job.

8. Are there other issues that could be addressed by the partnership? The Committee said there were quite a few, but listed three important ones. There has to be a level playing field [in the context of port competition] which is a big factor to all stakeholders. Mandatory versus non-mandatory participation is an issue. Some places should be mandatory, but other smaller areas where there is less traffic and risk, maybe not. The baseline safety portion of system should be federally funded. Other user fees will be port specific. These issues should be resolved in the public/private partnership agreement. Partnership with stakeholders is the essence of the new VTS.

Liability was considered a big issue. Federal government oversight and state legislation may be factors. Partnership agreements should include the liability issue for each port. After input from partners, an appointed group watches, oversees, monitor, trains, schedules and maintains so there is one entity with responsibility. You only have to go to one place.

There are already quite a few waterways management tools, such as COLREGS, the Radiotelephone Act, traffic separation schemes, aids to navigation, regulation navigation areas which are very important in San Francisco where you have a large recreational boating presence, vessel traffic services, NOAA's PORTS, ECDIS in the future, ADSS which is available now, AIS, and precision navigation systems which are getting better and better.

There was considerable discussion by the Council regarding distribution of funds and the perception that having a VTS may be used as a marketing tool to gain a competitive edge over another port without one. The perception that a port was unsafe because it doesn't have a VT was also mentioned as a pitfall and one that needs to be considered as the Coast Guard embarks on the new approach for determining which ports get VTSs as well as the level of services that a generic system would provide.

One member pointed out that as long as safety and the reality of port specifics are the baseline, it helps stakeholders overcome State officials telling the environmentalists that they intend to create a VTS for the entire coastline of California where a majority of vessels are transiting from 12 to 60 miles offshore. This plan is not cost effective. What do you gain for covering eleven hundred miles of coastline when it's the entrances to Los Angeles/Long Beach and San Francisco that are the potential problem areas? The users have less of a problem paying a fee at those two ports, but have real heartburn paying for "total coverage" that doesn't gain you more safety.

The following resolution was passed unanimously by the Council:

[96-15] The safe, effective use and environmental protection of the navigable waters of the United States is in the national interest. In the interest of navigation safety, NAVSAC recommends the Federal government accept and discharge its responsibility to provide navigation safety for the United States' navigable waterways. VTS is a waterways management tool, and on some waters, is a critical component for the safe movement of vessels and must be funded by Congress.

C. Report of the Prevention Through People (PTP) Committee.
(Members and participants appear in Appendix I of this Summary.)

Captain Mike Nesbitt reported as Chairman of the Committee. This was the third meeting of the PTP Committee and Captain Nesbitt provided a brief overview of past issues, goals, and action items from previous meetings. The most volatile issues have been:

1. Near-miss. Committee has spent a lot of time and has determined they can't define it. Everyone has their own definition of near miss. Without data of actual incidents, it is hard to determine what can be done to prevent a reoccurrence. The Committee talked about use of the licensing process for education for the lessons learned approach to near-miss, but there were too many problems with determining how the data collection would occur. The danger of misuse as far as whether it would remain anonymous or be used against you.
2. Data collection/accident reporting continues to be an issue.
3. Thresholds where high level resources apply - Committee decided this was best left to the individual companies.
4. Measurement of behavior changes and what behaviors are correctable: Committee felt this needed more time to see how industry incorporates PTP into their workplace, on vessels, and at management levels. This will be an evolutionary process where measurement cannot occur until the type of changes are identified.
5. Cooperation, not competition, between the various working groups: This process has started. The Coast Guard arranged the first PTP Committee chair phone conference in September 1996. This has already enabled better communication between the groups to provide updates, establish focus on what topics they are working on, and who the point people are.

The Committee then talked about exposure they have had to PTP issues since the April 1996 meeting. A member advised that RADM Card had addressed a large group at MITAG on Training 2000, giving an overview and specific information about what PTP is, and for some, this may have been their first

exposure. Another member advised that Crowley has incorporated PTP discussions in their training for STCW and hazards materials.

It was pointed out by another member that the guy on the deck is taking offense at the notion that 80% of all accidents are human factors related. In actuality, it may be that 80% of the 80% are management and/or process related.

Captain Nesbitt reported that the PTP phone conference between PTP Committee chairs was a success. It addressed the issue of communication and duplication of effort and is something that the Coast Guard intends to continue.

The Committee was tasked with discussing the following three issues and developing solutions or processes for addressing them:

1. Should NAVSAC incorporate the PTP philosophy and guiding principles into all deliberations and issues for which they advise the Coast Guard? The Committee said yes, this would shift the focus to human element first. They even discussed the fact if PTP philosophy and principles were considered in all Council deliberations, that there may come a time when a "PTP Committee" isn't needed. They suggested that NAVSAC be used as a reg neg tool. It would also be helpful for them to have a Coast Guard point of contact to disseminate information on what all the councils are doing. Their next tasking is to develop and recommend a process for incorporating PTP philosophy and guiding principles into NAVSAC deliberations.

2. How much and what type direction should the Coast Guard be expected to provide to assist an advisory council in addressing PTP issues? The Committee felt that it is important that the Coast Guard be in a guidance role versus an assignment role. The guidance would be on those issues on which the Committee needs it, not on the development of a worklist.

3. Would you or your colleagues in the marine community use a website containing "near accident" information, training deficiencies, equipment failures, etc., if suppliers of information were anonymous? Would such a website be useful to you in implementing PTP into your work environment? This item generated a lot of discussion as the group had already been trying to decide the format, rather than the content of a website. The Committee would like to have reportable incidents only, no near-miss reporting. The triggers for reportable are over \$25,000 in damage, propulsion failure or machinery problems. It will be difficult to include something to draw focus on the human element, but even a "nine switches" page would work. The current Form 2696 is inadequate for providing human factors information.

The Committee would like to see a lessons learned site on the web where companies or even the Coast Guard would be able to input. The site must be

interactive. Members felt they would use an interactive site because they put the information on themselves and can sanitize it however they want. Trust is an important element that will have to be earned. Companies have been sued for information they shared.

Tapping into ISO 900 to see what changes are taking place in the industry to gain ISO approval was discussed. Companies need to take control of how to prevent accidents in their arena by improving policies and procedures. If companies had access to the ISO stuff, they could take responsibility for their own operations.

Another suggestion was that lessons learned type of questions could be put on licensing examinations. The Committee expressed interest in being quality control for the website.

The following information would be useful on a website:

- Seminar summaries and schedules - when someone attends one, noteworthy information should be put on the web.
- Form 2696 information on reportable incidents.
- Human factor hotlinks - capability to link to existing human factors information already on the web without duplicating it on your own site.
- Communication with other Committees could be accomplished in a chat room versus bulletin board format. Needs to be interactive.
- Lessons learned - will take a while to develop, but critical.

Captain Nesbitt then reported on hot topics the Committee did not want to lose sight of. They included PTP technology, a link to technological advances among bridge teams and pilots. A NAVSAC resolution that human factors must be included in the design and development stages is reasonable. NAVSAC could provide valuable input during this phase. The need for training standards for equipment on the bridge was brought up. Fatigue in the wheelhouse is a big issue that the Committee wants to stay focused on as well as data collection for PTP issues.

The following resolution was passed unanimously by the Council:

[96-18] That all NAVSAC committees, ongoing and future, consider issues concerning PTP in their approach to all topics brought to NAVSAC for deliberation. That approaches to these issues apply the guiding principles for PTP already adopted.

D. Report of the Aids to Navigation Committee. (Members and participants appear in Appendix I of this Summary.)

Don Sheetz reported as Chairman of the Committee. This session was intended primarily as information exchange between NAVSAC and the Coast Guard to address concerns raised by a NAVSAC member regarding new navigation aids versus traditional. They were tasked to answer 12 specific questions and were fortunate to have CAPT Tom Meyers, Chief of the Coast Guard's Office of Navigation Aids, to serve as the Coast Guard's representative.

1. How accurate are these aids. The Committee came up with a number of bullets that should be considered when answering this question. Positioning has already been overtaken by technology. We acknowledge DGPS but the charts aren't necessarily as accurate as they need to be since some of the waterways were surveyed back in the early 1900's. The tolerance of the buoy is a factor. They discussed the accuracy classification of the aids and whether they should be disseminated to the mariner, specifically the pilot. Aids meeting the performance standards, the Coast Guard managing the mariners' expectations, and the public need to understand accuracy classes were important items in their discussion as well as education. The Committee concluded that fixed aids are adequately positioned and floating aids are sufficiently accurate.

2. What improvements have been made? The Committee identified reliability, the use of reflective tape, radar reflectors, collision tolerance (stronger), and lighting sources (power) as improvements. The power source has come from acetylene to battery and now to solar. Captain Meyers indicated that we have to look at aids as a "system". There is a trade-off in intensity in going to solar power. The light range intensity has been reduced in some instances.

3. Do mariners overly rely on floating aids even with GPS/DGPS available? The answer was yes, they possibly do, but it really depends upon the area. Pilots may rely entirely on aids in some situations, even with GPS/DGPS. Proficient mariners look at it as a balanced approach system. Education is essential to the use of electronics in positioning.

4. What other forms for guidance does the mariner have on a moving vessel in a buoyed channel? You can always look to ranges, depth soundings, visual sightings or bearings. Then there are radar and laptop DGPS.

5. What determines how and where unlighted buoys are used? Locally driven and dependent on user needs. Users provide information to the Coast Guard. Environment is a consideration.

6. Should unlighted buoys be placed in areas used by ships and barges carrying petroleum and chemical cargoes? Should be decided locally with user input.

7. Have electronic navigation systems reduced the importance of floating aids? It was an unqualified NO, absolutely no.

8. How relevant are traditional aids to navigation in today's world of reliable, accurate electronic navigational devices? They are an integral part of the system and serve as a redundant or backup system.

9. What can be done to improve floating aids? Keep up with technology -- don't fall behind other countries. Integrate automated information service (AIS) technology where appropriate and when available. Integrate VTS systems and use real time sensors on critical aids, based on local needs, were considered important. There may be trade-offs such as the reduction in actual nominal visibility in going to red and green lights.

10. Costs of traditional aids, maintenance, new buoys -- are they worth it? The Committee said yes, and developed a proposed resolution for Council consideration. Privatized maintenance has been tried and it didn't work.

11. Waterways Management Analysis System (WAMS) - future plans - increased use of RACONS, closer more productive relationships with waterway users? Yes, and it is driven by local requirements.

12. Impact on aids to navigation program of Coast Guard streamlining and downsizing, fewer buoytenders? Captain Meyers indicated that they went from 50 to 37 buoytenders and will be dropping to 30 with the larger size vessels. The Coast Guard is committed to providing mariners the best system with little or no reduction in service.

The Committee offered two resolutions for Council consideration and after minor adjustments, both were unanimously adopted.

[96-16] Traditional aids, i.e., buoys, beacons, ranges, etc. are still a vital part of the aids to navigation system. Electronic systems have enhanced the ability of navigators to ascertain their position but have not eliminated the need for traditional aids to navigation, especially when considering the variety of system users. NAVSAC supports continuation of the current, or higher, level of services for traditional aids.

[96-17] NAVSAC recognizes the value of user input in evaluating, developing and improving aids to navigation systems and urges the continued and increased collaboration by the Coast Guard and other agencies with local users on these issues.

4. **OLD BUSINESS**

Ms. Hegy provided an update on the continuance of LORAN C to 2000, which generated a good deal of discussion at NAVSAC's April 1996 meeting in San Francisco. The Coast Guard's Authorization Act of 1996 contained the following requirement:

"Not later than 6 month after the date of enactment of this Act, the Secretary of Transportation, in cooperation with the Secretary of Commerce, shall submit to the Committee on Commerce, Science, and Transportation and Infrastructure of the House of Representatives a plan prepared in consultation with users of the LORAN-C radionavigation system defining the future use of and funding for operations, maintenance, and upgrades of the LORAN-C radionavigation system. The plan shall provide for -

(1) mechanisms to make full use of compatible satellite and LORAN-C technology by all modes of transportation, the telecommunications industry, and the National Weather Service;

(2) an appropriate timetable for transition from ground-based radionavigation technology after it is determined that satellite-based technology is available as a sole means of safe and efficient navigation and taking into consideration the need to ensure that LORAN-C technology purchased by the public before the year 2000 has a useful economic life; and

(3) agencies in the Department of Transportation and other relevant Federal agencies to share the Federal government's costs related to LORAN-C technology.

At its April 1996 meeting, NAVSAC passed the following resolution:

- NAVSAC concurs with the Coast Guard plan to continue the LORAN-C service through the year 2000 for maritime use and that the resolution be forwarded to the Department of Transportation's Policy and Planning Office which is coordinating the development of the 1996 Federal Radionavigation Plan. NAVSAC recommends that the Federal Government revise the Federal Radionavigation Plan to include LORAN-C or its equivalent until such time that GPS is determined to be 100% failsafe.

Ann Adams proposed that the last sentence of the resolution be deleted. Her motion was not seconded as it would eliminate any reference to a redundant system which the majority of the members say they want. After much discussion, the resolution stands without change.

The second item of all business was clarifying NAVSAC's position on whether rest periods should be interrupted for drills as stated in an NPRM on the STCW amendments. This was brought up because there appeared to be some

inconsistency in the way members voted on the questionnaire mailed to them as part of the process of developing a written NAVSAC comment to the rulemaking docket. The position that went forward was that "NAVSAC recommends that drills be removed as an acceptable reason for not allowing the rest requirements to be met." Several members felt the questionnaire was confusing, but agreed that it was a moot point as the comment period for the NPRM had closed. Additionally, since an interim final rule would be published next, there would be another opportunity for the Council to comment.

The third item of discussion was a letter from the U.S. Sailing Association asking for reconsideration of the Coast Guard's decision to not include the International Yacht Racing Rules in the Inland Navigation Rules. The Council reaffirmed its previous decision not to modify the rules to incorporate the yacht racing rules.

5. NEW BUSINESS

A letter from Gateway Marine Services requesting that Inland Rule 3 be amended to include a definition of "impede" was considered by the Council. The Council reviewed the request and declined to take it for action and recommended that the Coast Guard refer them to previous information which had been published on the subject.

The need for a process for inter-sessional working groups/mail voting was raised by three members because they were not comfortable with how it was done on the STCW amendment NPRM. They feel that interaction with other members and discussion are essential elements which time did not permit. Generally, it was agreed that inter-sessional voting would be avoided when possible. When not possible, we will try to do it in such a way that allows pros and cons and others views to be shared prior to actually voting.

6. ADMINISTRATIVE MATTERS

Al Cattalini proposed that informational briefs on piloting -- after the Marine Board's study "Minding the Helm" - and charting - paper and electronic - be given at the next meeting. Chairman Fugaro reminded the group that quite a few briefs had been requested for the next meeting and these items would be included only if time allowed.

Suggested meeting sites and dates for next meeting were discussed. Locations suggested were Tampa, Miami, Rhode Island (Newport or Providence), Philadelphia, or Baltimore. The majority preferred a Rhode Island meeting location. The weekend meeting format will continue, but the next meeting will start on Friday and continue through Sunday. The date for the next meeting will be sometime in April 1997.

Chairman Fugaro thanked the members for their hard work, the public for their participation and the Coast Guard for its support. The meeting was adjourned at 1100.

Prepared by:

Approved by:

Margie G. Hegy
Executive Director

RADM Anthony Fugaro, USCG (ret)
NAVSAC Chairman